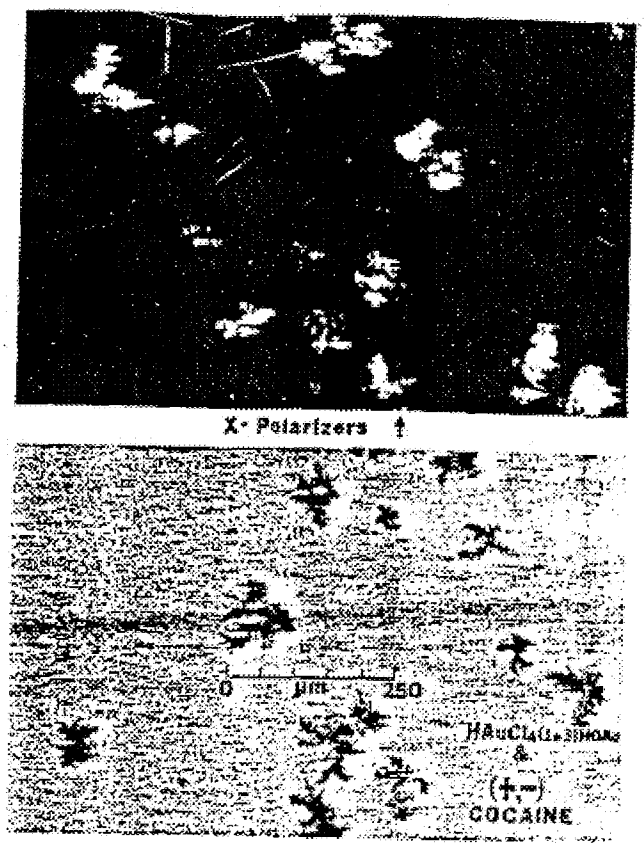

FIG. 3—*Gold chloride with (+, −)-cocaine.*

TABLE 3—*Abundance ratios.*

Compound	*m/e* 94:96	*m/e* 152:150
Cocaine	>1	1–2
Pseudococaine	<1	5–7
Allococaine	<1	7–10
Pseudoallococaine	>1	3–5

122, 182, 198, and 272 are at a lower relative abundance and the molecular ion (*m/e* 303) is at a higher relative abundance than the corresponding ions of allococaine.

The mass spectral data for the cocaines were obtained by direct insertion techniques rather than via a GLC interface. This was necessitated by a tendency of the less stable diastereoisomers, in particular pseudoallococaine, to thermally eliminate the elements of benzoic acid. The product of this thermal elimination is 2-carbomethoxytropidine (anhydroecgonine methyl ester). The electron impact fragmentation of this compound results in a spectrum with an *m/e* 152 base peak (Fig. 12). Since the differentiation of the diastereoisomeric cocaines relies heavily on the relative abundance of the ion at *m/e* 152, thermal elimination in the GLC/MS interface could interfere with that assessment.